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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,330	04/02/2001	James Michael Nelson	56081US002	9412

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EXAMINER	
HANDY, DWAYNE K	
ART UNIT	**PAPER NUMBER**
1797	

NOTIFICATION DATE	DELIVERY MODE
01/10/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
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Office Action Summary	Application No.	Applicant(s)	
	09/824,330	NELSON ET AL.	
	Examiner	Art Unit	
	Dwayne K. Handy	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9-11,13 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,9-11, 13 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 9-11 and 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 7,157,283. Although the conflicting claims are not identical, they are not patentably distinct from each other. Claims 1-25 of the patent ('283) recite a continuous method of making a combinatorial library comprised of the steps of providing a plug flow reactor, introducing components to the reactor, and changing at least one variable over time to produce the library of materials as well as additional method steps. Therefore, claims 1-25 of the patent fully encompass the rejected instant claims.

3. Claims 4-7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 7,157,283 in view of Wolfe (4,500,687). Claims 1-25 of the patent ('283) recite every element of claims 4-7 except for the reactor type, extruder and mixers. The claims of the instant patent do recite altering the mixing speed mixing spend and degree in order to generate libraries of material. Wolfe teaches a process for producing polymer materials. The process includes the use of CSTR's for mixing the elements in the reactors and an extruder for collecting the polymer product (Figures 1-3, columns 42-45). The mixers are used to mix the contents of the reactors and the extruder is used to process the polymer into cut or chopped pellets or granules (col. 45, lines 18-23). It would have been obvious to one of ordinary skill in the art to add the CSTR, mixers and extruder from Wolfe to the process of claims 1-25 of USPN 7,175,283. The patented claims recite the step of changing the mixing spend and degree in order to generate libraries of materials. One would provide the CSTR's and mixers in order to mix the contents of the reactors to make different materials or simply provide mixing in the reactor. One would provide the extruder to form a polymer product that may be easily cut or chopped for packaging as in Wolfe.

4. Claim 14 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 7,157,283 in view of Roth et al. (6,521,710). Claims 1-25 of the patent ('283) recite every element of

claims 4-7 except for the metallocene catalyst. Roth teaches a process for forming graft copolymers through a catalyzed polymerization process. The catalyst may be a Ziegler-Natta or metallocene catalyst (column 3, lines 35-55). The patent claims recite the use of grafting reactions to form the library but does not recite a specific catalyst. It would have been obvious to one of ordinary skill in the art to combine the Ziegler-Natta or metallocene catalyst from Roth with the method of claims 1-25 of USPN 7,175,283. One would add the Ziegler-Natta or metallocene catalyst to perform graft polymerizations.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 4-7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfe (4,500,687). Wolfe teaches a method for producing polymer materials. The method is shown generally in Figures 1-3 and described in columns 42-49. As shown in Figures 1 and 3, the system includes reactors with multiple different temperature zones (a, b, c) and mixing zones (103) as well as an extruder (137). Wolfe teaches the formation of a library of compounds of varying properties for examination by

varying the starting materials (Tables I-VI, XIV, XVI), shear and agitation rates (Tables XIX and XXI), and catalyst addition (Tables IX-XII, XXIX-XXXVI).

Inventorship

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe (4,500,687) in view of Roth et al. (6,521,710). Wolfe teaches every element of claim 14 except for the Ziegler-Natta or metallocene catalyst. Wolfe teaches a graft polymerization process that uses a catalyst system of multiple components that are mixed together before the reaction process (column 16, line 13 – column 18, line 58). Roth teaches a process for forming graft copolymers through a catalyzed polymerization process. The catalyst may be a Ziegler-Natta or metallocene catalyst (column 3, lines 35-55). It would have been obvious to one of ordinary skill in the art to combine the Ziegler-Natta or metallocene catalyst from Roth with the method of Wolfe. One would add the Ziegler-Natta or metallocene catalyst to from Wolfe in order to use a single-component catalyst instead of the multiple-component catalyst of Wolfe. This would eliminate the catalyst component mixing steps of Wolfe and save production and processing time.

Response to Arguments

10. Applicant's arguments, filed 10/31/07, with respect to the rejection(s) of claim(s) 1, 2, 4, 6 and 9-12 under Bergh have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Wolfe. See Paragraph 6.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K. Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DKH
January 4, 2008

Jill Warden
Supervisory Patent Examiner
Technology Center 1700